

APPENDIX A

Changes to the Specification

The paragraph at page 5, line 10 is revised as follows:

An RTP system that has been modified in accordance with the invention is shown in Figures 1-2. The RTP system includes a processing chamber 100 for processing a disk-shaped, eight inch (200 mm) or twelve inch (300 mm) diameter silicon substrate 106. The substrate 106 is mounted inside the chamber on a substrate support structure 108 and is heated by a heating element or a monolithic lamphead-reflector 202 located above the substrate. The heating element 202 generates radiation 112 which is directed to a front side of the substrate and which enters the processing chamber 100 through a water-cooled quartz window assembly 114. Beneath the substrate 106 is a reflector 102 which is mounted on a water-cooled, stainless steel base 116. The base 116 includes a circulation circuit 146 through which coolant circulates to cool the reflector and reflecting surface. Water, which is above 23[]°C, is circulated through the base 116 to keep the temperature of the reflector well below that of the heated substrate. The reflector 102 is made of aluminum and has a highly reflective surface coating 120. An underside or backside 109 of the substrate 106 and the top of reflector 102 form a reflecting cavity 118 for enhancing the effective emissivity of the substrate.

The paragraph at page 11, line 1 is revised as follows:

The lamp seal of the lamp is cooled by its close proximity to the surrounding cooled metal surface of the lamphead-reflector. Heat transfer from the lamp seal area can be improved through the use of heat transfer fluids, pastes, or polymers. A thermally conductive gas lamp ambient, for example, helium, may also be used to cool the lamp walls as described in U.S. application Serial No. [] 09/595,758, entitled "A Semiconductor Processing System with Lamp Cooling" (attorney docket number 3257-435001), filed on June 16, 2000, assigned to the assignee of the subject application and which is incorporated herein by reference. In the case of a low-pressure helium ambient, provision must be made to prevent pin-to-pin arc-over, as described below.